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List of Data Cards

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ACRONYMS, SYMBOLS AND ABBREVIATIONS

A=antenna capture Area

a=local speed of sound

ACM=Air Combat Maneuvering

ACP=Armament Control Panel

AGARD=Advisory Group for Aerospace Research and Development

AGL=Above Ground Level

ALT=ALTitude to begin air-to-ground resolution array test run

AMTI=Airborne Moving Target Indicator

avg_{lat}=average of the latitude of two radar targets

BIT=Built In Test

B_n=noise band width

$B_{scan\ deg}$=angular width of the B scan display in degrees

$B_{scan\ in}$=linear width of the B scan display in inches

CAD=Cartridge Activated Device

CAP=Combat Air Patrol

CPA=Closest Point of Approach

C=speed of light

CRT=Cathode Ray Tube

db=decibel

DBS=Doppler Beam Sharpening

DDL=Dispersive Delay Line

deg=degree

DEP=Design Eye Position

DLC=Delay Line Canceler

DME=Distance Measuring Equipment

DOD=Department of Defense
DR=Dead Reckoning

$drift_{\Delta h}$=measured angular horizontal drift

$drift_{\Delta v}$=measured angular vertical drift

$drift_h$=measured horizontal drift

$drift_v$=measured vertical drift

ECM=Electronic CounterMeasures

EHF=Extremely High Frequency

EO=Electro-Optical

ESM=Electronic Support Measures

EW=Electronic Warfare

f=frequency in hertz

FCS=Fire Control Set

f_{dt}=doppler shift due to target radial velocity

FL_c=focal length of the collimator (folded path length from target to mirror)

FLIR=Forward Looking Infrared Radar

FM=Frequency Modulation

F_n=noise figure

F_0=transmitted carrier frequency

FRL=Fuselage Reference Line

ft=feet

g=acceleration due to Gravity

G=directive gain of the antenna

GDOP=Geometric Dilution Of Precision

GHZ=Gigahertz

GPS=Global Positioning System

h=horizontal measurement of FLIR IFOV projected onto wall

H=altitude above the terrain in feet

HF=High Frequency

HOTAS=Hands On Throttle And Stick

h_{pc}=calibrated pressure altitude

HPD=Probability of Detection

h_{pi}=indicated pressure altitude

h_{po}=observed pressure altitude

HUD=Head Up Display

HZ=hertz

IFF=Interrogator Friend or Foe

IFOV=Instantaneous Field Of View

$IFOV_h$=Instantaneous Field Of View horizontal dimension

$IFOV_v$=Instantaneous Field of View vertical dimension

IFR=Instrument Flight Rules

IMC=Instrument Meteorological Conditions

in=inch

INS=Inertial Navigation System

IR=InfraRed

k=Boltzman's constant

KHZ=Kilohertz

KIAS=Knots Indicated AirSpeed

KOAS=Knots Observed AirSpeed

KW=Kilowatt

l=distance from FLIR aperture to crosshair intersection mark

l=distance to initial crosshair position for line of sight drift rate testing

L=receiver loss factor

LASER=Light Amplification through Stimulated Emission of Radiation

LED=Light Emitting Diode

LF=Low Frequency

LORAN=Long Range Navigation

LAT=the numerical average of the latitude of the two surveyed points

lb_f=pounds force

lb_m=pounds mass

m=meter

M=Mach number

MC=Mission Computer

MF=Medium Frequency

$M_{bearing}$=actual magnetic bearing from the flyover point to the radar target

MHz=megahertz

MIN=MINutes

MRΔT=Minimum Resolvable differential Temperature

MSL=Mean Sea Level

M_t=true Mach number

NFOV=Narrow Field Of View

nm=nautical mile

$NOTCH_{deg}$=angular width of the DBS notch

$NOTCH_{in}$=linear width of the DBS notch on the B-scan display

OAT_i=indicated Outside Air Temperature

OAT_o=observed Outside Air Temperature

P=transmitted power of the radar

PAL=Positive Arm Latch

PCA=Polar Cap Attenuation

PD=Probability of Detection

PMA=Program Manager for Aviation

PIREP=Pilot REPort of the weather

PPI=Planned Position Indicator

PPS=Pulses Per Second

P_{rep}=the TACAN derived range from the beginning of the peak of the sawtooth

PRF=Pulse Repetition Frequency

PRI=Pulse Repetition Interval

PW=Pulse Width

R=gas constant for air, 53.35 $(ft)(lb_f)/(lb_m)(^\circ R)$

rad=radians

Radar=Radio Detection and Ranging

R_b=target range at breakout

RF=Radio Frequency

$R_{horizon}$=radar horizon

r=angular resolution of the FLIR

rms=root meas square

R_{max}=maximum radar range

$R_{max\ unamb}$=theoretical unambiguous maximum range

R_{min}=theoretical minimum range

$R_{min\ res}$=theoretical minimum range resolution

R_{rep}=the TACAN derived range from the beginning of the peak of the sawtooth

R_{sf}=response of scanning FLIR

R_t=Range from the target

R_{target}=radar derived range to the targets

$R_{test\ begin}$=minimum range between test airplane and target for azimuth resolution testing

RΔT=Resolvable differential Temperature

S=across azimuth target Separation

SA=Selective Availability

SA=Situational Awareness

SEP=Spherical Error Probable

SF_{co}=cutoff Spatial Frequency

SF_{coa}=SF_{co} airborne

SF_{cog}=SF_{co} ground

SF_t=Spatial Frequency of the Target

SHF=Super High Frequency

SID=Sudden Ionospheric Disturbance

SMP=Stores Management Processor

SMS=Stores Management Set

S/N=Signal to Noise ratio

$(S/N)_{min}$=minimum signal to noise ratio

STT=Single Target Track

T=absolute temperature

t_a=ambient temperature

TACAN=Tactical Air Navigation

$T_{bearing}$=actual true bearing from the flyover point to the radar target

TEMP=Test and Evaluation Master Plan

TPC=Tactical Pilotage Chart

TWS=Track While Scan

UHF=Ultra High Frequency

v=vertical dimension of IFOV projected onto wall

V=magnetic variation

V&V=Validation and Verification

V_c=calibrated airspeed

V_i=indicated airspeed

VHF=Very High Frequency

VID=Visual Identification

VMC=Visual Meteorological Conditions

VLF=Very Low Frequency

V_o=observed airspeed

VS=Velocity Search

V_t=true airspeed

W=Watt

WP=WayPoint

W_{1c}=Width of one bar and one space in target template

WFOV=Wide Field Of View

Δ_{res}=measured angular resolution of the radar

Δh_{pic}=pressure altitude instrument correction

Δh_{poe}=pressure altitude position error correction

Δ_{Lat}=the difference between the latitude of the surveyed points in degrees

Δ_{Long}=the difference between the longitude of the surveyed points in degrees

Δnm=the difference in nautical miles between the surveyed points along the true north-south or east-west axis

ΔOAT_{ic}=Outside Air Temperature instrument correction

Δres=measured angular resolution

ΔT=temperature differential

ΔV_{ic}=airspeed instrument error correction

ΔV_{pos}=airspeed position error correction

γ=ratio of specific heats, 1.4

γ=aircraft flight path angle

λ=wavelength

μ=microns

μsec=microsecond

σ=radar cross section

σdesired=desired radar cross section

σtest=test target radar cross section

θ=test radar advertised antenna beam width

° =degrees

° R=degrees Rankine